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ABSTRACT

These three papers are from a symposium on individual learning issues. "A Quantitative Examination of the Feelings and Cognitive Processes of a Group of Adults Undertaking a Tertiary HRD [Human Resource Development] Program" (Bryan W. Smith) examines mental and emotional states of adults in a tertiary HRD learning situation by using stimulated recall methodology to categorize the scope and extent of these aspects of the informants' covert behavior. Reported results indicate the majority of thoughts and feelings were concerned with the behavioral moves of other students and their own self-performance. "The Cycle of Awareness Development: A Cognitive and Psychosocial Theory of Adult Development" (Martin B. Kormanik) uses qualitative data to suggest a five-stage cycle of awareness development (preencounter, intellectualization, encounter, empowerment, and integration), which repeats for each life event, transition, and other issue. "Personality Traits, Affect, and Values: A Model of Dispositional Effects on Motivation to Learn" (Elwood F. Holton III, Sharon S. Naquin) reviews the literature on dispositional domains of traits, affect, and values and proposes a model of dispositional effects on one HRD construct: motivation to learn. (YLB)

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Individual Learning Issues

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A Quantitative Examination of the Feelings and Cognitive Processes of a Group of Adults Undertaking a Tertiary HRD Program

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Mature adults who enter university late in life bring with them a variety of mental and emotional states. This paper examines the states of a group of adults in a tertiary HRD learning situation. Stimulated recall methodology was used in order to categorize the scope and extent of these aspects of the informants' covert behavior. Results indicated that the majority of thoughts and feelings were concerned with the behavioral moves of other students and their own self-performance.

Keywords: Adult Learning, Cognitive Processes, Feelings

This paper is a report upon one aspect of a broader study that researched the cognitive processes and feelings experienced by a number of adult learners undertaking a tertiary Human Resource Development (HRD) program. The broader study examined both the qualitative attributional analysis of adult learner covert behavior and the quantitative analysis of that behavior. This paper is only concerned with the quantitative analysis.

Adults entering tertiary study after years of work and a variety of formal educational experiences bring with them a range of mental states and affective situations. They differ markedly from younger students entering university directly from school who tend to be more homogeneous in their mental and emotional life. There is a need therefore to understand the myriad of cognitive processes and thoughts that these mature adults bring to the tertiary learning situation. By understanding these situations facilitators of adult learning can better structure learning experiences so that the needs of these adults are more effectively met.

Problem Statement and Theoretical Framework

The study is grounded in the humanistic, or phenomenological, tradition that postulates the individual, while learning, seeks greater personal adequacy, self esteem and self actualisation. Rogers (1965) indicates: "It (self actualising) has a quality of personal involvement – the whole person in both his feeling and cognitive aspects being in the learning event" (p. 5). In this tradition adult learners respond to the environment as each of them as individuals experiences it. Self becomes an important element in determining behavior to maintain and enhance self. Consequently, a phenomenological approach to the study as advocated by theorists such as Denzin and Lincoln (1994) seemed the most appropriate to access the phenomena of adult student life.

In accepting the stance that adult learners respond to a learning situation in their own idiosyncratic way it seemed logical to try and discover how adults actually did this. A search of the literature yielded little for adult learners. However, the literature is more revealing with children in classrooms. For instance, Wittrock (1986) indicated that research on children's thought processes:

> "studies the effects of teachers and instruction upon the student perceptions, expectations, attentional processes, motivations, attributions, memories, generations, understandings, beliefs, attitudes, learning strategies and metacognitive processes that mediate achievement" (p 297).

There have been studies of the thought processes of children while learning science (Eggin & Main,1990; Nakleh & Krajcik,1991; Jenkins,1995 and Shepardson & Jackson, 1997) and mathematics (Macmillan, 1990; Shannon & Curtin,1992; King. 1993 and Muth, 1993). However, apart from Verloop (1989), who examined the changes in cognition of student teachers while undergoing tertiary study, there appears to be little in the literature

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concerning the covert behavior of adult learners. This paper reports on a part of the research that attempts to fill that gap.

Research Questions

According to Denzin and Lincoln (1994), the type of research questions that fit the phenomenological paradigm are "meaning questions" or questions that elicit the "essence of experience" (p224). Consequently, because of the need to investigate the nature of adult students' thoughts and feelings as they enter tertiary study following workplace experience, and in order to better provide them with appropriate learning strategies, this paper is interested in exploring the following broad questions: What are the idiosyncratic thoughts and feelings that flow through the minds of adults while they are in a learning situation? What sorts of ideas, beliefs, views, emotions and lines of reasoning make up the learner's conception of self-performance? In what ways can these thoughts and feelings be categorized and counted?

Methodology

The study design involved stimulated recall methodology (King and Tuckwell,1983) which enabled both quantitative and qualitative data to be derived from interviews with the adult students. This paper reports the quantitative analysis of their thoughts and feelings. Each adult student was treated as a case study and the quantitative data contributed to the description and interpretations of the phenomena being analysed.

Four adults undertaking learning in a semester unit within a university HRD program were interviewed over a six month period about their thoughts and feelings concerning their conceptions of self-performance. The students were video-taped for the duration of a three hour training session on each of three occasions. Immediately on completion of each session the students were interviewed using the videotape for stimulated recall. Their responses were audiotaped and transcriptions created. The transcriptions were later examined for all statements that contained thoughts and feelings that the students reported as having occurred during the sessions. These thoughts and feelings were classified as interactive data and were distinguished from the non-interactive data, that is, those thoughts and feelings that occurred before or after the sessions. Non-interactive data were not coded.

Before each interview the student was reminded that the researcher was seeking recall of only those thoughts and feelings that occurred during the sessions. Clues to interactive data in the transcripts include statements beginning: "I was just thinking about..." and "I was feeling..."

The next stage of analysis involved unitization or segmentation. This means the data were divided into units of single thoughts or feelings. These units were sometimes contained in a few words, sometimes in a sentence, or even an entire paragraph.

Once this had occurred each thought and feeling was categorized. The category system used was CASSIT (Content Analysis of Students' Interactive Thoughts) developed by King (1979) and modified by this researcher to reflect the adult nature of the analysis. The nine categories of CASSIT used were:

Subject Matter – thoughts and feelings dealing with the content of the sessions.
Cognitive processes – thoughts dealing with the student's cognitions such as perception, knowing, remembering.
Behavioral Moves-Self – thoughts and feelings about any action the student was performing such as avoiding, seeking, attending.
Behavioral Moves-Student – thoughts and feelings concerning the actions, perceptions of other students.
Behavioral Moves-Facilitator – thoughts and feelings on actions concerning the facilitator.
Self-Performance-Thoughts – thinking about own performance, behavior, self attributions, self expectations.
Self-Performance-Feelings – emotions about own performance.
Feelings-(Positive & Negative) – emotions during the sessions other than those about self-performance.
Non Task-Related – any thought or feeling about off task behavior.

Intercoder and intracoder reliability statistics were calculated using Pearson's product-moment correlation coefficient. The researcher trained a colleague in the use of CASSIT and the colleague applied CASSIT to a sample of transcripts. The researcher revisited the data six months after the researcher's first coding. Both coefficients were sufficiently high enough for the researcher to conclude that the informants' thoughts and feelings were being correctly categorized.

Discussion of the Results

The results of the categorization for each of the four adult learners (real names not used) appear below.

Table 1

Percentage Distribution of Student Thoughts Over CASSIT Categories for Each Session: Gail

Categories of student covert behaviour	Session 1	Session 2	Session 3	Percentage of total
Subject matter	-	13.3	1.7	5.1
Cognitive processes	20.0	16.7	19.0	18.6
Behavioural moves – Self	1.7	5.0	8.8	5.1
Behavioural moves – Student	18.3	13.3	28.3	19.8
Behavioural moves – Facilitator	15.0	11.7	5.3	11.3
Self performance – Thoughts	18.3	20.0	5.3	14.1
Self performance – Feelings	26.7	20.0	31.6	26.0
Feelings – Positive	-	-	-	-
Feelings – Negative	-	-	-	-
Non task related	-	-	-	-

Gail reported the largest number of feelings about her own performance. These were particularly high in Session 1, dipped a little in Session 2 and dominated Session 3. She reported numerous feelings of anxiety, concern and worry alongside feelings of happiness and cheeriness.

She also reported a large number of thoughts concerning learning the subject matter: perceiving or being aware, knowing and remembering, justifying and reasoning. These remained relatively constant over the three sessions.

Gail's quantity of self performance-thoughts was high in the first two sessions but dipped markedly in the third. This could be accounted for by a significant increase in self performance-feelings. It was during this session that Gail reported feeling more comfortable with her own performance and was becoming increasingly aware of her own behavioural moves and those of her fellow students.

A comparison across sessions showed a significant dip in thoughts concerning other students in the middle session. This may be explained by a corresponding rise in self performance-thoughts that peaked during the middle session.

The decline in the number of thought units over the three sessions indicates a decreasing interest in the facilitator. This may be explained by the fact the facilitator had established a pattern of behaviour that became so

automatic Gail was no longer aware of his instructional moves. Similarly, there may have been more emphasis upon group and paired work to the extent the facilitator appeared to be redundant in her own mind.

The trend over the three sessions shows an interesting increase in the quantity of behavioral moves-self thought units. This trend indicated that Gail became increasingly introspective and self-analytical about her own performance and in the last session she reported above average quantities of thought units. Perhaps the experiences of the classroom were such that Gail became increasingly aware of her need to participate publicly.

Table 2

Percentage Distribution of Student Thoughts Over CASSIT Categories for Each Session: Sam

Categories of student covert behaviour	Session 1	Session 2	Session 3	Percentage of total
Subject matter	14.0	4.8	1.9	6.3
Cognitive processes	25.6	11.3	24.5	19.6
Behavioural moves – Self	2.3	1.6	-	1.2
Behavioural moves – Student	14.0	12.9	41.5	22.8
Behavioural moves – Facilitator	11.6	16.1	1.9	10.1
Self performance – Thoughts	11.6	17.7	20.8	17.1
Self performance – Feelings	16.3	22.6	9.4	16.5
Feelings – Positive	-	12.9	-	5.1
Feelings – Negative	-	-	-	-
Non task related	4.7	-	-	1.3

In Session 1 analysis indicated more than one quarter of all Sam's covert behavior was concerned with thought processes involved in learning the subject matter. This means he spent a lot of time involved in perceiving or being aware, to knowing or remembering, or reasoning about the content of the sessions. He was very much involved in intellectual activity that would assist his learning. While this dropped away in Session 2 it climbed back to a similar level for Session 3.

Self-performance feelings rank highly in Session 1. Sam demonstrated a large number of feelings concerned with a range of emotions subsumed under this category: anxiety, happiness, disappointment, worry. These climb dramatically to dominate Session 2 before fading in Session 3.

Sam reported a significant number of thoughts and feelings about other students: perceptions of their performances, inferences of their thoughts and perceptions about their behavior. Many such thoughts were concerned with observations of others' demonstrated intellect and manifestations of experience with the subject matter. Such thoughts totally dominated the third session where over 40% were concerned with others' behavior.

Interestingly, Sam reported no emotions at all that were negative such as annoyance, frustration and apprehension, and reported a significant number of positive emotions such as excitement, surprise and happiness in Session 2.

Overall, Sam appeared to be most concerned with his fellow students and the intellectual requirements of the program. In addition, he reported covert behavior that dealt with his thoughts and feelings about his own performance. He appeared to be aware of how he was coping with both learning the content and the actions of his colleagues.

Table 3

Percentage Distribution of Student Thoughts Over CASSIT Categories for Each Session: Dee

Categories of student covert behaviour	Session 1	Session 2	Session 3	Percentage of total
Subject matter	2.7	9.4	2.9	4.6
Cognitive processes	10.7	17.0	11.8	12.8
Behavioural moves – Self	10.7	1.9	2.9	5.6
Behavioural moves – Student	25.3	7.5	35.3	24.0
Behavioural moves – Facilitator	13.3	9.4	10.3	11.2
Self performance – Thoughts	18.7	35.8	10.3	20.4
Self performance feelings	18.7	18.8	23.5	19.9
Feelings – Positive	-	-	-	-
Feelings – Negative	-	-	4.4	1.5
Non task related	-	-	-	-

Dee, in Session 1, reported a high percentage of thought units dealing with perceptions of other students. This is understandable considering that when entering any new situation people show a lot of interest in those around them. While this concern dropped away in Session 2 it dominated Session 3. In this latter session, Dee reported concern with the domination of a number of students who were "grandstanding" in front of the group.

Thoughts and feelings about self-performance ranked highly in the first session and these continued to predominate throughout. There were no positive feelings reported but in the final session some negative feelings were generated.

Dee indicated minimal thoughts about cognition and even less about the subject matter. There were no off task thoughts reported at all.

In summary, Dee, like Sam, reported more thoughts about other students than any other category, though when self-performance thoughts and feelings, and feelings not associated with self-performance, are aggregated, these comprise nearly half of her covert behavior.

Table 4

Percentage Distribution of Student Thoughts Over CASSIT Categories for Each Session: Pat

Categories of student covert behaviour	Session 1	Session 2	Session 3	Percentage of total
Subject matter	36.1	1.25	2.6	13.3
Cognitive processes	-	13.8	23.1	11.1
Behavioural moves – Self	18.0	-	-	6.1
Behavioural moves – Student	8.2	3.8	12.9	7.2
Behavioural moves – Facilitator	14.8	-	2.6	5.6
Self performance – Thoughts	6.6	3.8	2.6	4.4
Self performance –Feelings	16.4	12.5	28.2	17.2
Feelings positive	-	37.5	28.2	22.8
Feelings negative	-	15.0	-	6.7
Non task related	-	12.5	-	5.6

Pat's first session is dominated by reports of thoughts about the subject matter – its concepts, operations and applications. There is an amazing drop off in reports of this in the following sessions that might have indicated a decline in interest or an increasing familiarity with the content. This decline is off set by a large increase in positive and negative feelings outside of those associated with self-performance and a large quantity of non-task related thought units in Session 2.

Session 2 also indicated no reported thoughts at all concerning his own behavior and the behavior of the facilitator. This trend is repeated to a lesser extent in Session 3.

Unlike the other subjects of this study Pat shows only minimal concern with the behavior and actions of his fellow students and for that matter, the facilitator. His large scores in categories dealing with his own feelings, mostly outside of his self-performance, indicate a tendency towards intrinsic learning – perhaps an interest in his self actualisation.

Conclusions

The conclusions that can be drawn from the study suggest the kind of mental and emotional life that adult students entering university seem to experience. Four case study subjects preclude generalizations about adult learners but, from a heuristic sense, the plausibility of the phenomena analyzed indicates some validity of the wider population. The analysis of four adult learners' covert behavior goes some way into indicating the type and extent of the thoughts and feelings that other such adults may experience during a university learning experience. These thoughts and feelings are mostly about other students – interactions with them, perceptions of their behavior and performance and inferences of their thoughts. Such a finding supports the belief that adults, in a learning situation, are keenly interested in their fellow students and are quick to measure their own experience and learning against their perceptions of what others have already achieved or are currently demonstrating.

Feelings about self-performance also rank highly. Adult learners are anxious about not coping, excited when they achieve, get disappointed with low grades and worry about how their performance is affected by outside pressures. As well, it is logical that thoughts about self-performance also predominate. Adults constantly monitor their success and failures, spend energy in causal explanations of self-performance and are forever contemplating future success or failure.

Contrastingly, the results indicated these adults spent little time pondering about actions they performed, or considered performing, in relation to the learning process. They did not report many motives, desires or intentions to either seek or avoid public participation or to attend or not attend. They also reported limited interest in the behavioral moves of the facilitator – his instructional moves, reactions, interactions and overt behavior. The reasons for this could be that each session was group-based and there was little direction from the facilitator. What interest was shown by the research group concerned comparisons between their own instructional style and that of the facilitator. Perhaps a group of non-trainers would have downgraded this interest even further.

Limitations

This paper only reported the quantitative analysis that was applied to the four adult learners and therefore only tells part of the story. The rest of the story looked into the attributional analysis of self-performance covert behavior. For example, how did the adults explain their behavior? How consistent were those explanations to profiles of explanatory styles and conceptions of learning that they previously reported? The limitations normally applied to any phenomenological research can also be applied to this: subjectivity, researcher bias (despite the reliability and validity checks), reliance upon the memory of the informants and the lack of generalizability.

Contribution to New Knowledge

However, as a microanalysis of the reported thoughts and feelings of four adult learners, and despite the above limitations, there is some contribution to the understanding of the adult in the learning situation. Thoughts and emotions play an important part in the learning process for adults. The research literature would suggest that high frequency and wide diversity of self-oriented thoughts and feelings are likely to mediate the effectiveness of student learning (Wittrock, 1986). The adults in this study reported a huge range and extent of such thoughts and emotions.

This has implications for facilitators that seem to have been insufficiently emphasised in adult learning. Therefore, facilitators of adult learning neglect this information and probable consequence at their peril. Facilitators need to view the student as a whole person and restructure learning experiences for adults accordingly. They need to be open minded, less dogmatic, warm and more encouraging of student self-directedness. They should be seen as helpers who provide a learning climate in which the adult can feel free to develop emotionally as well as intellectually – be that in a training room or in the workplace.

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The Cycle of Awareness Development: A Cognitive and Psychosocial Theory of Adult Development

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An individual's perspective is a function of awareness development around life events, affecting the individual's attitude and behavior. This phenomenon inhibits communication, understanding, and the ability to move beyond reaction to the event. A framework is needed to help individuals understand themselves and others in reaction to life events and to assist in moving beyond dysfunctional reaction. Qualitative data suggest a five-stage cycle of awareness development. Implications for HRD practitioners are discussed.

Keywords: Development, Diversity, Critical Life Events

Problem Statement

When four people on different corners of an intersection see an altercation between two vehicles in the middle of the intersection, the individuals will likely differ in their description of what happened based on their perspective of the altercation. Similarly, when two individuals are confronted by a life event or issue, they will differ in their reaction to the issue based on their perspective or meaning schema (Schon, 1987). The individual who has successfully weathered a downsizing in his or her organization is at a different stage of awareness development than the individual who is in the middle of dealing with the anger and frustration of the restructuring.

The phenomenon that individuals view the same life event from their own perspective is problematic because it obstructs communication and understanding about the event and the individual's subsequent attitude and behavior. This in turn inhibits the ability to move beyond the reaction to the event to a position for effectively dealing with it. In the literature, much is said about the need to understand where another individual is coming from in order to lead, manage, or work effectively with them (Bennis & Nanus, 1985; Covey, 1989; Katzenbach & Smith, 1993; Roberts, 1985). A framework is needed to help individuals understand themselves and others in reaction to life events. The framework should enhance understanding, as well as assist in moving beyond any dysfunctional reaction to an event.

Theoretical Framework

Nothing in the literature is said about a repeating pattern or cycle of awareness development around life events transitions, and other issues. Theories on life-span development traditionally focus on life stages, or the changes that occur as the individual ages (Erikson, 1950; Levinson, 1978). These theories associate adult development with the sequence of life events—a linear approach. Other work has examined the rhythm of life events in a cyclical approach (Neugarten, 1979; Neugarten & Neugarten, 1987; Schlossberg, 1984). Numerous issues affecting adult development confront individuals during their lifetime. Some of these issues are closely tied to significant life events, such as entering school, starting work, a change in marital status, and the death of a family member. Other issues may not be directly tied to significant life events, yet still affect adult development (e.g., violence, terminal illness, substance abuse, harassment, discrimination, oppression).

Hypothesis

This paper focuses on understanding the repeating pattern or cycle of development, rather than attempting to use life events, transitions, or issues themselves as demarcations of development. The hypothesis is that an individual's perspective is a function of his or her awareness development around life events. The individual's perspective affects the individual's attitude and behavior. The theory proposed in this paper attempts to address several questions, including: Why are some individuals are more sensitive than others to the issue/event at hand? Why do

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some individuals not even recognize an issue/event at hand? How can practitioners explain, interpret, and predict an individual's attitude and behavior based on the individual's stage of awareness development?

Research Design

This paper proposes a theory of adult awareness development. While no formal study has been undertaken to date, qualitative data obtained over the last five years from participants in executive training programs, career counseling sessions, and management consultation work provide the data yielding the phenomenon of adult awareness development under study. A structured interview protocol to obtain data on the phenomenon and theory was developed in December 1998. The interview protocol will be used to validate the theory through formal qualitative research in 1999.

Results and Findings

The data suggest a five stage cycle of awareness development repeating around the life events and issues confronting the individual. The theory addresses cognitive and psychosocial development, linking the data to the psychology, sociology, education, and anthropology literature. The five stages in the cycle of awareness development are pre-encounter, intellectualization, encounter, empowerment, and integration.

Pre-encounter

When an individual has no experience with the issue, the individual is at the *pre-encounter* stage of awareness development. The individual has no perception of the issue in terms of self or others (e.g., the man gives a cursory glance at the newspaper headline reporting that a woman was assaulted and raped in the neighborhood). The individual has not actually experienced it personally or recognized it in relation to others (e.g., "I don't do drugs and I don't associate with people who do"). They do not understand it because it is not a part of their world view (e.g., the white male who has no concept—knowledge or experience—of discrimination).

Given this state of development, the individual would not recognize the issue even if it were thrust upon them. The pre-encounter stage shown in the older gentleman who doesn't see the need for going to mandatory sexual harassment prevention training because, "I don't harass and there aren't any women in my shop." Sexual harassment is not an issue in his world. The man or woman in pre-encounter who knows nothing about marital discord because, "I'm in a good marriage and everyone I know is also." Marital discord is not an issue for them.

In describing the eight ages of man, Erikson (1950) describes the evolution of individual identity. Based on this evolution, the awareness development stage of pre-encounter would likely precede the early stages of identity development, during childhood and adolescence. This is, however, not the case. Although the issue may be in the individual's unconscious, individuals may move well into adulthood before having cognition or experience with any of the issues or life events discussed in this paper.

Intellectualization

As the individual starts learning about an issue, they move into the second stage of awareness development, *intellectualization*. This stage focuses on cognitive development around the issue, or encounter from the neck up. The individual begins to recognize the issue, yet there is little or no emotional involvement (e.g., "Yeah, I guess finding a cure for AIDS is important, but that doesn't affect me."). Intellectualization creates a sense of invulnerability. The spouse in intellectualization about the makings of a solid marriage despite the high divorce rate in her occupation, says, "We take care of things in our marriage, so that won't happen to us." The white male moving into the intellectualization stage begins to understand that workplace discrimination occurs, yet thinks that if he works hard and keeps his nose clean he will steadily advance up the corporate ladder. The older gentleman intellectualizes that sexual harassment might become an issue if a woman were to enter his work group, but thinks he doesn't need to worry about it till then.

The intellectualization stage of awareness development includes recognition of the issue as a function of what happens to others. The parent in intellectualization thinks, "I've brought my kids up right. I know nobody in *this* family is going to use drugs. The people down the street, on the other hand, let their kids run wild. It's no wonder they've turned out the way they have." Frequently, individuals in intellectualization rationalize the occurrence of an issue as warranted. The individual intellectualizing about sexual harassment or assault thinks, "She was wearing a

short, tight skirt. What did she expect?" After reading the newspaper article about the woman being raped, the man in intellectualization wonders why the woman was stupid enough to go out at a late hour by herself, then turns to thinking about the neighborhood property values going down because of the increase in crime.

Bronfenbrenner's (1979) work on the effect of social and cultural factors on adult development suggests that those closest to the individual are going to have the most impact. The role of context literally forms you. Schon (1987) further suggests that the situation frames the learning. In a situation that does not present, focus on, or involve the individual with the issue, their stage of awareness development would be pre-encounter. Cognitive development starts as the situation begins reflecting the issue. In the cycle of adult awareness development, as the individual's situation reflects the issue, the individual moves from pre-encounter into intellectualization.

Argyris' (1982) description of single loop learning focuses on cognitive development using existing routines and mental models, causing self-reinforcing patterns rather than developing new solutions. The individual in intellectualization spends a great deal of time on mental gymnastics, repeating a pattern of single loop learning. Miller (1980) suggests that intellectualizing is a "blunting" strategy, enabling an individual to avoid cognition of an unacceptable event. In the intellectualization stage of adult awareness development, the individual is not avoiding cognition. Rather, they are enjoying the intellectual discourse on an issue that does not really affect them.

The intellectualization stage of awareness is emblematic of Sternberg's (1985) definition of the mechanics of intelligence, where intelligence focuses on conceptual and theoretical (i.e., school book intelligence) as opposed to competence for everyday living. The intellectualization stage of adult awareness development is a hypothetical world where the issue remains at a distance and can be addressed in concepts and generalities, rather than a concrete world where the issue is a reality.

Encounter

Encounter, the third stage of awareness development, begins when the individual has the primary experience with the issue. This may be a "big zap." The man who worried about property values declining moved into encounter in a rush when his wife was forced to go out at night to get milk for their colic baby and was raped in the poorly lighted store parking lot. The spouse coming home after yet another extended business trip quickly entered encounter upon finding that her husband had filed divorce papers. The homeopathic, naturalistic, non-smoker found herself in encounter when she was diagnosed with lung cancer in a routine physical.

An individual might slide into encounter after an extended, low-level exposure to the issue. One woman, the first female engineer in the organization for which she worked, suggested, "It's not the big things in life that get you down. It's the constant barrage of little things that erode your confidence and make you wonder if it's all worth it." Pearlin, Lieberman, Menaghan, and Mullan (1981) stipulate:

> "Hardships that are an enduring testimony to one's lack of success or to the inadequacy of one's efforts to avoid problems would seem to pose the most sustained affront to one's conceptions of self-worth and of being in control over personal destiny....It is the abiding problems to which people can see no end, those that seem to become fixtures of their existence, that are intrinsically uncongenial with positive self-concept" (p. 346).

Experience with the issue generates two phases in the encounter stage of awareness development. Initially, behavior focuses on *implosion* (i.e., "Why me?!") due to the shattering of the perception of invulnerability created during the intellectualization stage. This stage of awareness development may include self-doubt (i.e., "What's wrong with me?!") and foster a sense of self-blame (i.e., "I must have done something to bring this upon myself."). The second phase of the encounter stage of awareness development is ***explosion***, giving encounter the subtitle of rage stage. The individual feels, "I'm mad as hell and I'm not going to take it anymore," yet the individual also has the perception of lack of control and a sense of powerlessness to do anything about the issue.

Building on the precepts of social learning theory, Rotter (1966) provided grounded theory on the locus of control construct in a discussion of generalized expectancies for internal versus external control of reinforcement. Rotter conceptualized locus of control as a predisposition in the perception of what causes reinforcement (i.e., reward, favorable outcome, goal accomplishment). A predisposition for internal locus of control (i.e., internality) results from perception that reinforcement is contingent on one's own behavior or one's own relatively permanent characteristics or traits. Perception that reinforcement is due to luck, chance, fate, or factors beyond one's control indicate an external locus of control (i.e., externality). Individuals experiencing the encounter stage of the cycle of awareness development perceive a shift in locus of control toward externality.

A slightly different perspective on the concept of internal versus external control of reinforcement was provided by Lefcourt (1976). "In being forced to hear predictable noise we may stop work and wait until it ceases, or steel ourselves for the onset, minimizing our own responses to the noise. We are not as helpless as we might otherwise be since we can do something to minimize the impact of the predictable noise. It is this perception of the ability 'to do something' that gives rise to the concept of perceived control" (p. 5). Perceived control is a generalized expectancy for internal control of reinforcement. Reactions to unpleasant stimuli are shaped by the individual's perceptions of the stimuli and by the individual's perceptions of ability to cope with the stimuli. Individuals in encounter have diminished coping ability.

Encounter occurs when an individual perceives their social power has been threatened, eroded, or taken away. Gurin and Brim (1984) suggest the need for control is basic to self and describe research showing depressed individuals as hyper-realistic about their lack of personal efficacy. Personal efficacy means "judging the self as capable, as a person able to produce acts that should lead to desirable outcomes" (p. 283). Rotter's (1954) study on locus of control The husband in encounter wanted to turn back time and feared he was going to lose control and kill someone, yet he perceived there was absolutely nothing he could do about his feelings. The female engineer felt there was nothing she could do to change the situation—feeling certain that everything always had been and always would be controlled by an old-boys-network.

The individual may experience the issue firsthand or the individual may "live" the issue through the experience of others. The female engineer directly encountered gender inequity and harassment. On the other hand, the husband was not raped but entered the encounter stage of awareness development around the issue of rape due to his wife's experience. The older gentleman who intellectualized that sexual harassment did not affect him entered encounter when, over the dinner table, his daughter tells him about sexual harassment she experienced at work.

The individual in encounter has total and extended immersion in the issues, resulting in intense personal involvement. Being in encounter does not mean having a bad day or week, but having a bad life. Depression may be symptomatic of the implosion phase of encounter. The female engineer suggested she had been in encounter for at least nine years. The husband suggested it was nearly a year before he was able to move beyond the rage stage of awareness development and reconcile his anger. The total immersion in the issue creates a blindness that inhibits further progression in the cycle of awareness development. This immersion often leads to erroneous assumptions and paranoia. Everyone else's motives are seen as maligned. The white male who intellectualized that he would advance in his job if he did the right things does not get the promotions he expected and finds no headroom. He attributes this to women and minorities getting promoted because of "unfair quota programs" rather than the flattening of the corporate structure or his own deficient work output.

Erikson (1950) suggests that individuals having a psychosocial crisis in one stage of development must resolve the crisis. If the individual is unable to resolve the crisis, the individual is destined to repeat the crisis in later life stages. The individual revisits the crisis issue again and again until they are effectively able to resolve it. The encounter stage of adult awareness development is emblematic of this recurring crisis.

Ironically, individuals in rage stage may begin to find comfort in the encounter stage of awareness development. The individual sees himself or herself as having a difficult or bad life and, consciously or unconsciously, pulls others into their world. It is no surprise that being around the individual in rage stage is difficult. Attempting to help the individual in rage stage is described as, "like trying to hug a porcupine." The individual in encounter takes family, friends, and colleagues "from east hell to west hell and back" on a daily basis. One individual described a coworker as "carrying a bucket of doom and gloom" everywhere in the workplace. Consciously or unconsciously, others' may avoid the individual. Unfortunately, it is during the encounter stage that the individual needs the support of others the most.

The issue precipitating entry into the encounter stage of awareness development may result from comparison to one's peers. Neugarten and Neugarten (1987) identify social time in relation to one's contemporaries as:

> "a set of anticipations of the normal, expectable life cycle: expectations of what the major life events and turning points will be and when they should occur. People internalize a social clock that tells them if they are on time or not" (p. 33).

Life crises occur when the rhythm and timing of life events is out of sync with one's peers. The disorienting dilemma created by out-of-sync social time is akin to the encounter stage of awareness development.

> "It is the events that upset the expected sequence and rhythm of the life cycle that cause problems—as when the death of a parent comes during one's adolescence rather than in middle age; when marriage is delayed too long; when the birth of a child comes too early; when occupational achievement is slowed;

when the empty nest, grandparenthood, retirement, major illness or widowhood occurs" (Neugarten & Neugarten; p. 33).

In studying the attitudes of individuals confronted with terminal illness, Kubler-Ross (1969) identifies five stages: denial and isolation, anger, bargaining, depression, and acceptance. The encounter stage of awareness development is a reflection of the first four of these stages. Isolation and depression closely align with the implosion phase of encounter, while anger corresponds to the explosion phase. Acceptance relates to moving out of encounter to the next stage in the cycle of awareness development.

Empowerment

The fourth stage of awareness development is *empowerment*. This stage includes seeking and finding strategies for securing enough power to make necessary changes while managing risk to self and others. Empowerment requires reflection, where negative judgment is suspended. The individual begins to use their discretion in a more rational manner. The empowerment stage encompasses a resurgence in the individual's perception of personal and position power. During empowerment, the feelings of powerlessness and loss of control generated during the encounter stage are reconciled. Personal efficacy is regained during the empowerment stage. Individuals begin to recognize the extent of power they have within their span of control and, even if that power is limited, use that power to regain a sense of control.

A significant part of empowerment comes from enlisting the aid of others through the development and maintenance of support systems (e.g., mentors, confidants, networks). The feedback learning loop support systems provide fulfills the need for coaching the individual in the empowerment stage of awareness development. Feedback as a strategy for empowerment requires a discourse or dialogue. This serves as the making-meaning piece—for enabling the individual to move beyond the frustration, anger, and misperception of encounter. Mezirow (1985) suggests this tends to be done socially. Gurin and Brim (1984) identify "attention and processing of social information as the first step in change" (p. 312). Kram (1988) also notes the importance of workplace social systems for supporting individual development and reconnecting an individual experiencing the isolation of encounter.

Participants in a diversity training initiative suggested several strategies for moving through the empowerment stage of awareness development around the issues attendant to diversity in the workplace (Kormanik & Geffner, 1995). Strategies included working the problem out internally, getting outside help, putting the problem on hold, and taking training. The strategies shed light on how individuals might provide assistance to, or seek assistance from others, to enable them to get beyond the rage stage of encounter. The data reinforce individual responsibility and accountability for moving out of encounter, through empowerment, to the next stage of awareness development.

Integration

Integration, the fifth stage of awareness development, is the state of "being whole"—synergy, synthesis. The individual regains a sense of control. The effects of the issue that precipitated encounter dissipate easily. The female engineer stating, "Like rain off a duck's back, I don't let the pettiness bother me anymore." The individual knows *what* they do and *why* they do it as a result of the cognitive and psychosocial development during the empowerment stage. The individual who went through a divorce suggested that if the encounter stage of awareness development was "when you are pissed," then the integration stage was "when you get creatively pissed"—functionally rather than dysfunctionally. The individual is capable of helping himself or herself, as well as others, be effective and successful in their efforts. This may occur in both professional and personal endeavors.

Anthropologists suggest that "with evolution, the self becomes more distinct and it also assumes more responsibility for its own deeds" (Peacock & Kirsch, 1970, p. 288). The individual moves toward rationality in order to better manage irrational drives. The progression through empowerment to the integration stage of awareness development represents regaining control of the irrationality created during the encounter stage.

The cognitive and psychosocial development represented by moving through the empowerment stage into integration represents the growth piece. As the individual moves through empowerment to integration, the individual finds new and more effective ways to resolve or at least cope with the issue that precipitated encounter. In integration there is practical application of strategies for moving beyond the crisis of encounter. Sternberg (1985) defines pragmatic intelligence that emphasizes experience and real-world context where problem solving in everyday life occurs naturally. The development through empowerment to integration is similar to the double loop

learning suggested by Argyris (1982). In Levinson's (1978) terms, moving to the integration stage represents becoming your own man or woman. The integration stage correlates to the Jungian (1983) concept of individuation, as well as the concept of individual time identified by Neugarten (1979). Schon (1987) describes perspective transformation as a fundamental change in the way the individual views the world, revolution rather than evolution. Movement through the cycle of development to the stage of integration around a particular issue embodies the concept of perspective transformation.

Movement to the integration stage in the cycle of awareness development does not mean the individual's psychosocial and cognitive development are complete. Perry's (1981) work on cognitive development shows higher level thinking in later developmental stages, where the individual understands:

> "This is how life will be. I must be wholehearted while tentative, fight for my values, yet respect others, believe my deepest values right yet be ready to learn. I see that I shall be retracing this whole journey over and over—but, I hope, more wisely" (p. 79).

The process of awareness development is not static. It is a dynamic, repeating cycle. The individual will remain at integration only until the next issue comes along. The individual may have already reentered the cycle of awareness development around another life event or issue. Let us hope more wisely.

Conclusions

Individuals go through a cycle of awareness development around life events, transitions, and other issues. The cycle includes five stages: pre-encounter, intellectualization, encounter, empowerment, and integration. The various stages of the cycle embody cognitive, psychological, and social development. The cycle repeats for each life event, transition, and other issue. Individuals generally progress through the stages of awareness in sequence, but progression varies significantly. Depending on the specific issue, some individuals may progress rapidly and some might stagnate at an early stage.

Contribution to New HRD Knowledge

Glaser and Strauss (1967) suggest that the discovery of grounded theory from social research data is of particular importance when it provides "relevant predictions, explanations, interpretations and applications" (p. 1). The cycle of awareness development theory enhances understanding of why some individuals are more sensitive than others to the issue at hand. The theory provides a useful framework that helps both practitioners and laypeople predict, explain, and interpret an individual's attitudes and behaviors based on the individual's stage of awareness development. There are several implications for HRD.

While this paper focused on awareness development at the individual level, application to the organization is appropriate. For example, the work group that goes into encounter when there is a critical incident of violence in the workplace, or the work force that goes into encounter after. The HRD practitioner can develop programs for increasing awareness about workplace violence to move people out of pre-encounter and assist in proactive intellectualization. Critical incident teams can be set up to assist employees in encounter. A plan can be put in place with strategies for moving employees out of encounter, through empowerment, to integration.

Other events that could precipitate individuals and organizations moving through the cycle of awareness development include: a clash in corporate cultures after an organizational merger, a new boss or change in organizational leadership, a series of reorganizations and downsizing, or the stress of dealing with constant organizational change. HRD practitioners must be ready to assist employees and management move through the cycle, while recognizing that some employees will need additional help in moving beyond encounter.

Training and development programs are another area for application of the cycle of awareness development. Diversity training programs, for instance, should focus on moving employees out of pre-encounter with diversity issues to enhance understanding of what coworkers might be going through as a result of their diversity. HRD practitioners must recognize that confrontational diversity training forces people into encounter. While this training methodology may be appropriate, the training design must also move the employees beyond encounter, through empowerment, to integration via skills building and development of organizational support systems.

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Personality Traits, Affect, and Values: A Model of Dispositional Effects On Motivation to Learn

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HRD research has largely ignored non-situational influences on outcomes. One particularly promising area of individual difference research is the dispositional perspective. This paper reviews the literature on potential dispositional effects in HRD and proposes a model of dispositional effects on motivation to learn.

Keywords: Personality Traits, Affect, Values, Motivation to Learn

In order to develop and implement effective training program, various aspects of the learning situation must be carefully and thoroughly considered. Examples of these aspects requiring attention include: the developmental goals and objectives; the individual and situational differences; and, the core principles of adult learning (Knowles, Holton, and Swanson, 1998). Facilitators must fully understand and appreciate the complexities of: the nature of the intended outcomes; the training activities and experiences that can lead to these outcomes; internal and external influences that potentially affect these outcomes; and the ways learners vary as individuals and in groups (Tomlinson, et al., 1992).

To date, much of the related research has largely ignored non-situational components. That is, much less emphasis has been focused on the way learners vary as individuals. Because these individual differences may affect key outcomes and are virtually ignored, this is a potentially crucial oversight. Variations among individuals, specifically variance in dispositional characteristics, and its relationship to HRD outcomes such as motivation to learn must be considered. Such a comprehension will aid in recognizing and employing strategies and methodologies that fit the learners, the desired outcomes, and the learning context.

This paper serves to introduce dispositional effects into HRD and proposes one specific application, motivation to learn. More specifically, this paper will review the literature on dispositional domains of traits, affect and values, and propose defend a model of dispositional effects on one HRD construct, motivation to learn.

Dispositional Approach Defined

Industrial, organizational, and psychological researchers have a long history of interest in individual differences and dispositional characteristics. Applications of related investigations are found in assessment activities, vocational counseling, and personnel selection procedures (Murphy, 1996). Murphy identifies four separate individual difference domains: cognitive ability, personality, orientation (values, interests, etc), and affective disposition (i.e., mood, affect, and temperament). These areas do not exhaust the set of individual differences that might substantially influence job performance or other organizationally relevant criteria (i.e., physical or psychomotor differences might be important in certain situations), but they do represent the most frequent concerns of related theory and research (Murphy, 1996). As Murphy (1996) indicated, individual differences influence behavior in organizations; however, their influence extends past behavior to organizational outcomes. They can affect long-term performance improvement or a permanent decline in productivity, increased personal growth or intellectual stagnation.

These individual differences have given rise to a stream of research known as the dispositional approach, which has been the focus of much empirical research in recent years. While other organizational research perspectives focus on situational and interactional perspectives (an interaction between the situation and the individual), this approach primarily focuses on the individual. Dispositional theorists posit that individuals possess certain characteristics that are enduring – consistent across situations and over time. Thus, dispositional effects are a subset of the individual differences domain which refers to all aspects of individual differences, not just those that are enduring. These relatively stable individual characteristics affect an individual's attitudes and behavior (Davis-Blake & Pfeffer, 1989), or cause an individual to perceive different contexts in consistent ways (Schaubroek et al.,

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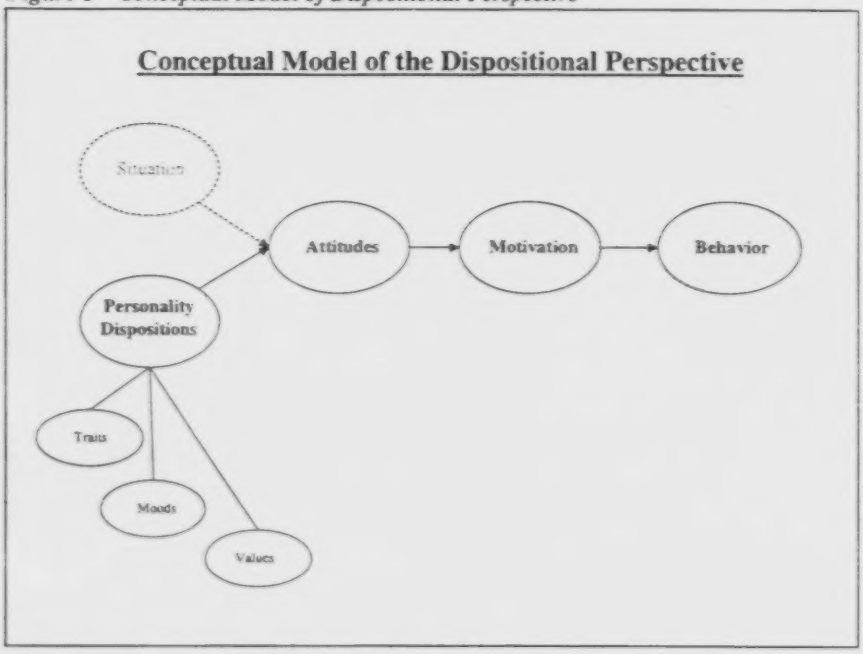
1996).

Dispositional characteristics include three major domains: personality traits, affect, and values. By measuring these personal characteristics, individual attitudes and behaviors can be more accurately explained (Staw & Ross, 1985). Figure 1 below illustrates the conceptual framework for understanding the dispositional perspective. As shown, situational and dispositional factors (traits, affect, values) interact to influence attitudes, which in turn influence motivation, and finally behavior.

Figure 1 – Conceptual Model of Dispositional Perspective



Among the empirical studies focused on the dispositional approach to job attitudes and behaviors are studies of its effect on job performance (Barrick & Mount, 1991), and examinations of test-retest correlations of job attitudes (Staw & Ross, 1985). Research suggests that there are dispositional underpinnings of work values, attitudes and moods (c.f., Arvey, et al., 1989; George, 1989; Staw, Bell, & Clausen, 1986). Because each of the three aspects of the work experience is affected by an individual's dispositional traits, these dispositional foundations suggest that there is an element of stability associated with job attitudes and behavior (George & Jones, 1997, Staw & Ross, 1985). The relationship between dispositional factors and work-related strain has also been investigated (Brief, et al., 1988; McCrae & Costa, 1991). And, George (1989) has investigated the relationship between dispositional affectivity and employee absences. Further supporting evidence will be discussed in the next sections.

Personality: The Five-Factor or Big Five Taxonomy

The Five-Factor Model (FFM) dominates the current view of personality and provides a unifying structure to its study. This model has, in fact, garnered so much support, that the FFM "has now become an almost universal template for understanding the structure of personality" (Ferguson & Patterson, 1998, p. 789). As the name implies, this model suggests that there are five broad categories of traits at the top of the personality trait hierarchy. The relatively orthogonal five-factor taxonomy resulted from decades of research on the structure of human personality (Costa & McCrae, 1992), and has gained the support of numerous researchers (e.g., Costa & McCrae, 1995a; Digman, 1990; Goldberg, 1990). As highlighted by Costa and McCrae (1992), the five dimensions of the Five Factor model of personality are: Neuroticism, Extraversion, Openness to Experience, Agreeableness, and

Conscientiousness.

Barrick and Mount's (1991) meta-analytic study showed that personality validly predicted training proficiency across all occupational groups studied, with correlations ranging from r = .26 for Extroversion, r = .25 for Openness to Experience, r = .23 for Conscientiousness, r = .10 for Agreeableness, and r = .07 for Emotional Stability. They attributed the relationship between Extraversion and training to the fact that many training programs are highly interactive and require a considerable energy level among participants – characteristics that are highly compatible with traits associated with Extroverts.

There is some evidence of consistent correlations between Conscientiousness scores and educational achievement (Barrick & Mount, 1991). These researchers asserted that Conscientiousness is the most consistent predictor of academic achievement and job performance among the personality traits (Mount & Barrick, 1995). A possible explanation for this finding relates to an individual's attitude upon entering a training program (Barrick & Mount, 1991). Individuals who rate high on the Conscientiousness factor, because of attributes such as intelligence, curiosity, and broad-mindedness, are more likely to have positive attitudes toward learning experiences in general (Barrick & Mount, 1991). Ryman and Biersner (1975) found a link between individuals' attitudes prior to participation in a training program and graduation from a Navy School for divers; and Sanders and Vanouzas (1983) revealed that attitudes and trainee expectations influence the likelihood of positive training outcomes (Barrick & Mount, 1991). Salgado (1997) found that Agreeableness and Openness were predictors for training criterion (r = .31 and r = .26, respectively).

Affect: Positive and Negative Affectivity

Watson and Clark (1984) conducted extensive reviews of research studies in personality and subjective emotional experience, and theorized that the tendency to experience positive or negative affect represents a stable dispositional trait. They discovered consistently high inter-correlations between measures of negative emotions such as anxiety, irritability, neuroticism, and self-deprecation (Levin & Stokes, 1989). They asserted that the various scales, though diverse, were measuring components of a more global trait – negative affectivity. Subsequently, the concepts of positive affectivity (PA) and negative affectivity (NA) have been widely researched with respect to work-related behaviors and attitudes (c.f., George & Brief, 1992; Watson, Clark, & Tellegen, 1988). Researchers have concluded that neuroticism tends to be more strongly associated with NA and extraversion tends to be more strongly associated with PA (McFatter, 1994).

Negative affectivity (NA) is fundamentally an emotion-based trait dimension (Watson & Clark & Tellegen, 1988). Individuals with higher levels of NA tend to focus more on negative aspects of themselves, others, and the world in general. Individuals with higher levels of positive affectivity exhibit a more positive focus. High levels of NA are related to a type of cognitive bias or a lens through which individuals approach and understand their life experiences, which may affect how people experience and evaluate their jobs (Levin & Stokes, 1989).

Individuals with high levels of PA typically demonstrate a general enthusiasm for life and are often described as energetic, joyous, eager, sociable, zestful, and exhilarated. Tellegen (1985) characterized individuals high on the PA dimension as having a general sense of interpersonal relation and achievement (George & Brief, 1992). Low PA scorers are often considered to be apathetic and indifferent. They do not see themselves as pleasurably engaged, have a weak overall sense of well-being, and do not consider themselves to be self-efficious (Tellegen, 1985). PA has also been found to influence an individual's responsiveness to incentives (Gouaux & Gouaux 1971), heighten the level of generosity extended to others (Isen & Levin, 1972), and enhance learning speed (Masters, Barden & Ford, 1979). Wright and Mischel (1982) found that positive affectivity also results in heightened expectations, greater estimates of past successes, and more favorable self-assessments.

Work Ethic and Values

Researchers have amassed considerable evidence to suggest that values influence work-related decisions (Dawis & Lofquist, 1984; Judge & Bretz 1992; Ravlin & Meglino, 1987). Values relating to work have been defined as work values, occupational values, and career values (Pine & Innis, 1987). Employers frequently mention work ethic, also termed Protestant Work Ethic (PWE), as a desirable work value of employees. Coupled with employability skills, work ethic is often cited as an attribute that is desirable or necessary for employment success (Custer & Claiborne, 1991; Hill, 1992). Work ethic is a multi-dimensional construct that has social, economic, and political implications (Furnham, 1990a), and because work ethic is an abstract concept, there exists a multitude of both definitions and

measurement techniques. It is important to discuss several of these definitions as each adds an important dimension to the construct and helps clarify its significance. Greenberg (1977), for instance, identified work ethic as a personality construct, and Morrow (1983) defined the term as the extent to which one intrinsically values work as an end in and of itself. Other researchers extend their conceptualizations of the work ethic past the notion of intrinsic value and introduced personal accountability and responsibility for the work that an individual performs into the definition of work ethic (Cherrington, 1980;Yankelovich & Immerwahr, 1984). The concept of work ethic has also been defined for "an individual (or for a more or less homogeneous group of individuals) as a value or belief (or a set of values or beliefs) concerning the place of work in one's life that either (a) serves as a conscious guide to conduct or (b) is simply implied in manifested attitudes and behavior" (Siegel, 1983, p. 28). This definition is an important one because it applies to a wide variety of groups; it is culture-free; and neutral to a historical context, to location, to non-work interests.

The most fundamental argument supporting the dispositional nature of work ethic focuses on the fact that work ethic is considered a value. The stability of values (i.e., values are enduring beliefs) and the fact that values are generally "not specifically linked to situations" (Furnham, 1990, p. 35), supports the dispositional underpinnings of values. The dispositional nature of work ethic is also evident in Morrow's (1993) conceptual model of work commitment that uses concentric circles to depict a multifaceted approach to defining and measuring the construct. As Blau (1997) wrote, Morrow indicated that work ethic was the innermost circle, followed by career commitment, continuance then affective organizational commitment, and job involvement as the outermost circle. Furthermore, she says that work ethic is linked to personality because of evidence that it covaries with other stable personality traits such as locus of control and authoritarianism (Morrow, 1983).

Furnham and Koritsas (1990) stated that much of the research efforts relating to work ethic have been focused on devising psychometrically assessed measures of the PWE, examining the relationship between PWE beliefs and other work and non-work behavior, and investigating the relationship between the PWE beliefs and other individual difference measures of personality, values and social attitudes (Furnham, 1982). Merrens and Garrett (1975) predicted and found that individuals with high PWE scores performed better and longer on tasks designed to provide low motivation and interest levels. Greenberg (1977) found that negative performance evaluations resulted in performance improvement among individuals with high PWE scores and a decrease in performance levels among individuals with low PWE scores.

Dispositional Effects on Motivation to Learn

Because dispositional effects have not been prevalent in HRD research, there is no theory to draw upon in order to construct a model of dispositional effects on motivation to learn. There are however multiple studies that suggest such a model is appropriate and worth testing. This section reviews those studies.

Personality While the direct relationship between personality variables and training proficiency has not been extensively studied, the findings of Barrick and Mount (1991) are particularly meaningful. Using the Big Five taxonomy, they found that training proficiency could be predicted for individuals falling within the following personality dimensions -- Conscientiousness, Extraversion and Openness to Experience. Colquitt and Simmering (1998) investigated the relationship between personality variables and motivation to learn, and found a positive relationship between motivation to learn and Conscientiousness with learning after orientation, both initially and after performance feedback was given. "Personality variables explained an incremental 28% of the variance in prefeedback motivation to learn ($p < .001$), with both conscientiousness ($r = .33$, $p < .001$) and learning orientation ($r = .38$, $p < .001$) having significant independent relationships. Personality variables explained an incremental 27% of the variance in postfeedback motivation to learn ($p < .001$), again with both conscientiousness ($r = .28$, $p < .001$) and learning orientation ($r = .40$, $p < .001$) having significant independent relationships" (1998, p. 661)."

Affect George and Brief (1992) argued that affective characteristics can serve as information that guides and directs an individual's motivational attention. They also argued that affective characteristics impact the nature of motivation. They cite Clark (1982) and Morris and Reilly (1987) as support for this contention. The pervasiveness and nonspecific nature of moods are part of the reason that moods appear to have such extensive effects on cognitions and development (Morris & Reilly, 1987).

George and Brief (1996) have recently proposed a model of work motivation in which moods - particularly positive moods - play a pivotal role. In their model, positive moods are proposed to influence distal motivation (for example, choice of behaviors or effort levels) by causing workers to have higher expectancies, instrumentalities, and valence due to the effects that positive moods are likely to have on the cognitive processes underlying these judgements.. Positive moods are also proposed to influence proximal motivation (for example, ongoing behavior when actually engaged on a task) by causing workers to maintain higher standards for themselves. While negative

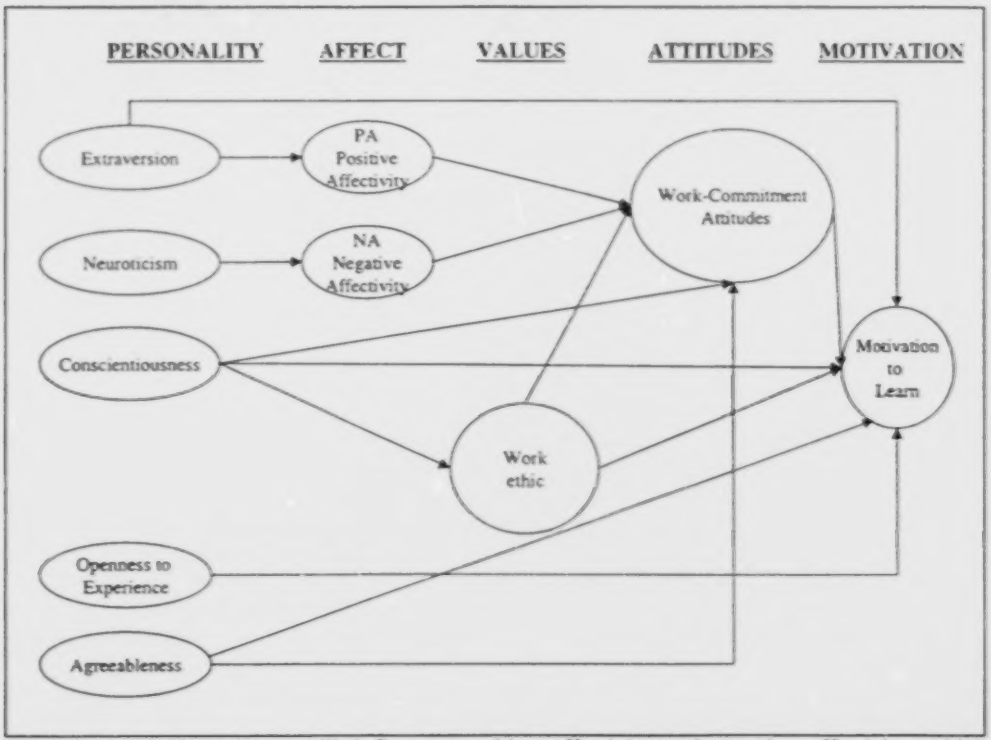
moods are also likely to influence work motivation, their potential effects are more difficult to tease out (George, 1996).

Values The antecedents and consequences of values have been extensively studied and work ethic is one of the most widely examined work values. Its effect on both work commitment attitudes and achievement (a motivational component) has been well documented. Such studies include: 1)Values influence job satisfaction, organizational commitment, and job involvement (Lei & Mowday, 1987); 2) Individuals with high PWE scores performed better and longer on tasks designed to provide low motivation and interest levels (Merrens & Garrett, 1975); 3) Work ethic is related to achievement (Murray, 1938; Furnham, 1990); 4) Work values are more associated with organizational commitment than instrumental values (Putti et al., 1989); 5) Organizational commitment is positively related to cognitive work value items (Koslwosky & Elizur, 1990); and, 6)Researchers have found a potential relationship between PWE and job involvement (c.f., Brief & Aldag, 1977; Mayer & Schoorman, 1998; Rabinowitz & Hall, 1977).

Attitudes Because dispositional variables have been found to be related to attitudes, and attitudes are related to motivation, it is logical to hypothesize that attitudes serve as a mediator to motivation to learn. In fact, Noe established a link between job attitudes and motivation to train (1986). He suggested that training programs are "more salient to individuals who are highly involved with their jobs" (1986, p. 739). Participation in job-related training programs could increase skill levels, improve job performance, and increase an individual's sense of self-worth (Noe & Schmitt, 1986). These are outcomes that are valued by highly involved, conscientious employees. Facteau et al. (1995) and Tannebaum et al. (1991) examined the association between commitment and motivation to train, and Facteau et al. (1995) studied the extent to which trainees' attitudes and beliefs influenced their pretraining motivation. Their findings indicated that individuals who were committed to the values and goals of the organization had higher levels of pretraining motivation. In a study conducted at a U.S. Naval Recruit Training facility, they found a high correlation (r = .53) between commitment and motivation to learn.

Proposed Model Research about dispositional effects on learning and motivation to learn is clearly in its infancy so any proposed model must be considered exploratory at this stage. The model shown in Figure 2 hypothesizes the following relationships, based on available research and theory.

Figure 2 – Dispositional Model of Motivation to Learn



1. Extraversion and Neuroticism will influence positive affectivity and negative affectivity, which in turn

influence work attitudes, which then influences motivation to learn
2. Extraversion will also have a direct effect on motivation to learn.
3. Work Ethic will have a direct effect on motivation to learn, and an indirect effect through its influence on work attitudes.
4. Conscientiousness will influence motivation to learn in three ways: through its influence on work attitudes; through its influence on work ethic; and a direct effect.
5. Openness to experience will directly affect motivation to learn.
6. Agreeableness will directly affect both work attitudes and motivation to learn.

Consistent with the conceptual model shown earlier, Figure 2 shows that work attitudes are a key mediator for some dispositional effects. Two key work attitudes, job involvement and organizational commitment, are expected to exert the most influence on motivation to learn. It is important to note that this model does not capture all influences on motivation to learn, which would include situational effects. Rather, it hypothesizes what are believed to be the key dispositional influences on motivation to learn.

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